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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/346,794	07/02/99	SNUTCH T	NMEDP001-2

HM12/1004

KATE H. MURASHIGE
MORRISON & FOERSTER LLP
12636 HIGH BLUFF DRIVE
SUITE 300
SAN DIEGO CA 92130-2071

EXAMINER	
BASI,N	
ART UNIT	**PAPER NUMBER**
1646	8

DATE MAILED: 10/04/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/346,794	Applicant(s) Snutch et al
	Examiner Nirmal. S. Basi	Group Art Unit 1646

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *1* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-24* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☐ Claim(s) _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims *1-24* are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

3. **Please Note**: In an effort to enhance communication with our customers and reduce processing time, Group 1640 is running a Fax Response Pilot for Written Restriction Requirements. A dedicated Fax machine is in place to receive your responses. The Fax number is 703-305-3704. A Fax cover sheet is attached to this Office Action for your convenience. We encourage your participation in this Pilot program. If you have any questions or suggestions please contact Paula Hutzell, Supervisory Patent Examiner at Paula.Hutzell@uspto.gov or 703-308-4310. Thank you in advance for allowing us to enhance our customer service. Please limit the use of this dedicated Fax number to responses to Written Restrictions.

Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-4, 10-12, 16-20, 22 and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide, method for producing said cell and method for the production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:18 and is encoded by SEQ ID NO:17, classified in class 536, subclass 23.1.

II. Claims 1-4, 10-12, 16-20, and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide, method for producing said cell and method for the

production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:20, classified in class 536, subclass 23.1..

III. Claims 1-4, 5, 10-13, 16-20, and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide, method for producing said cell and method for the production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:24 and is encoded by SEQ ID NO:23, classified in class 536, subclass 23.1.

IV. Claims 1-4, 5, 10-13, 16-20, and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide, method for producing said cell and method for the production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:26 and is encoded by SEQ ID NO:25, classified in class 536, subclass 23.1.

V. Claims 1-4, 5, 10-13, 15, 16-20, 22 and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide, method for producing said cell and method for the production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:28 and is encoded by SEQ ID NO:27, classified in class 536, subclass 23.1.

VI. Claims 1-4, 6, 10-12, 14, 16-20, and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide, method for producing said cell and method for the

production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:31 and is encoded by SEQ ID NO:30, classified in class 536, subclass 23.1.

VII. Claims 1-4, 6, 10-12, 14, 16-20, and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide , method for producing said cell and method for the production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:33 and is encoded by SEQ ID NO:32, classified in class 536, subclass 23.1.

VIII. Claims 1-4, 6, 10-12, 14, 16-20, and 24 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, cells transformed with vector containing said nucleotide , method for producing said cell and method for the production if said α_1 subunit, where α_1 subunit is set forth in SEQ ID NO:35 and is encoded by SEQ ID NO:34, classified in class 536, subclass 23.1.

IX. Claim 22 drawn to purified DNA molecule encoding the α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is encoded by SEQ ID NO:29, classified in class 536, subclass 23.1.

X. Claims 7, and 8, drawn to a purified α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is set forth in SEQ ID NO:24, classified in class 530, subclass 350.

XI. Claims 7, and 8, drawn to a purified α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is set forth in SEQ ID NO:26, classified in class 530, subclass 350.

XII. Claims 7, and 8, drawn to a purified α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is set forth in SEQ ID NO:28, classified in class 530, subclass 350.

XIII. Claims 7, and 8, drawn to a purified α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is set forth in SEQ ID NO:31, classified in class 530, subclass 350.

XIV. Claims 7, and 8, drawn to a purified α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is set forth in SEQ ID NO:33, classified in class 530, subclass 350.

XV. Claims 7, and 8, drawn to a purified α_1 subunit of a T-type mammalian calcium channel, where α_1 subunit is set forth in SEQ ID NO:35, classified in class 530, subclass 350.

XVI. Claims 21, drawn to method of identifying compounds capable of acting as agonists and antagonists for T-type calcium channels, classified in class 435, subclass 7.2.

XVII. Claims 23, drawn to method for mapping the distribution of T-type calcium channels, classified in class 435, subclass 7.6.

The inventions are distinct, each from the other because of the following reasons:

The proteins of Invention X-XVI are distinct inventions because they are physically and functionally distinct chemical entities, comprising distinct calcium channels, and are capable of separate use and manufacture. The distinct calcium channels can be used in materially different processes, e.g. for the production of specific antibodies.

The nucleic acid of Invention I-IX are distinct inventions because they are physically and functionally distinct chemical entities, encoding distinct calcium channels, and are capable of separate use and manufacture. The distinct nucleic acids cam be used for the production of the protein encoded, which in turn can be used for the production of specific antibodies.

The proteins of Invention X-XVI may be related to the nucleic acids of Invention I-IX by virtue of encoding the same. The DNA molecule has utility for the recombinant production of the protein in a host cell. Although the DNA molecule and protein may related since the DNA encodes the specifically claimed protein, they are distinct inventions because they are physically and functionally distinct chemical entities, and the protein product can be made by another and materially different process, such as by synthetic peptide synthesis or purification from the natural source. Further, the DNA may be used for the processes other than the production of the protein, such as nucleic acid hybridization.

The products of Inventions I-XV and the method of claims XVI and XVII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

process of using that product (MPEP § 806.05(h)). In the instant case the proteins may be used for the production of antibodies, and the nucleic acid used for the production of protein or in hybridization assays.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their divergent subject matter, restriction for examination purposes as indicated is proper. A search of the art for Inventions I-XVII would not be co-extensive with each other. Because the searches required for these inventions are not co-extensive an examination of the materially different, patentably distinct inventions in a single application would constitute a serious burden on the examiner.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

Advisory Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirmal Basi whose telephone number is (703) 308-9435. The examiner can normally be reached on Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, can be reached on (703) 308-6564. The fax phone number for this Group is (703) 308-0294.

Official papers filed by fax should be directed to (703) 308-4242. Faxed draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Nirmal S. Basi
Art Unit 1646
September 30, 2000

YVONNE EYLER, PH.D
PRIMARY EXAMINER

RESTRICTION ELECTION FACSIMILE TRANSMISSION

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IN COMPLIANCE WITH 1096 OG 30, THE FILING DATE ACCORDED EACH OFFICIAL FAX TRANSMISSION WILL BE DETERMINED BY THE FAX MACHINE DATE STAMP FOUND ON THE LAST PAGE OF THE TRANSMISSION, UNLESS THAT DATE IS A SATURDAY, SUNDAY, OR FEDERAL HOLIDAY WITHIN THE DISTRICT OF COLUMBIA, IN WHICH CASE THE OFFICIAL DATE OF RECEIPT WILL BE THE NEXT BUSINESS DAY.